









# NuPAGE® Tris-Acetate Mini Gels

	<b>Package Contents</b>	<b>Product</b> 7% Tris-Acetate Gels      Box of 10 gels 3–8% Tris-Acetate Gels    Box of 10 gels
	<b>Storage Conditions</b>	<ul style="list-style-type: none"> <li>Store at 2–8°C for a 6-month shelf life.</li> <li>Do not freeze.</li> </ul>
	<b>Required Materials</b>	<ul style="list-style-type: none"> <li>Protein sample and standard</li> <li>NuPAGE® Tris-Acetate SDS Buffer Kit</li> <li>NuPAGE® Antioxidant</li> <li>Tris-Glycine Native Running Buffer (10X)</li> <li>NuPAGE® LDS Sample Buffer (4X)</li> <li>NuPAGE® Sample Reducing Agent (10X)</li> <li>Tris-Glycine Native Sample Buffer (2X)</li> <li>Novex® Power Supply Adapters (Cat. no. ZA10001) if not using a Life Technologies™ power supply</li> <li>XCell <i>SureLock</i>® Mini-Cell gel running tank</li> </ul>
	<b>Timing</b>	Run Time:      1 hour for denaturing gel 2–3 hours for native gel  Voltage:    150 V constant
	<b>Selection Guide</b>	<a href="#">Protein Gels</a> Go online to view related products.
	<b>Product Description</b>	<p>NuPAGE® Tris-Acetate Gels are precast polyacrylamide gels designed for optimal separation and resolution of large-sized proteins (36–500 kDa) under denaturing gel electrophoresis conditions.</p> <p>NuPAGE® Tris-Acetate Mini Gels are available in the following variations:</p> <ul style="list-style-type: none"> <li><b>Polyacrylamide percentages:</b> 7% and 3–8%</li> <li><b>Well formats:</b> 10, 12, 15, and 2D</li> <li><b>Thicknesses:</b> 1.0 mm and 1.5 mm</li> </ul>
	<b>Important Guidelines</b>	<ul style="list-style-type: none"> <li>This system is designed for use in the XCell <i>SureLock</i>® Mini-Cell gel running tank.</li> </ul>
	<b>Online Resources</b>	Visit our <a href="#">product page</a> for additional information and protocols. For support, visit <a href="http://www.lifetechnologies.com/support">www.lifetechnologies.com/support</a> .

For Research Use Only. Not for use in diagnostic procedures.



## Protocol Outline

- Prepare samples, buffers, and gels.
- Assemble the gel apparatus.
- Load buffer, samples, and standards.
- Perform electrophoresis.

## Electrophoresis Protocol

- i** See page 2 to view a procedure for preparing and running your electrophoresis experiment.

## Choosing the Right Gel Type for Your Application

- i** Review the table in the pop-up to determine the best gel type for your experiment.

## Choosing the Right Gel Percentage and Buffer

- i** Refer to the migration and conversion charts in the pop-up to find the gel best suited for your application. As a general rule, your proteins of interest should migrate through ~70% of the length of the gel for the best resolution. When protein molecular weights are wide ranging or unknown, gradient gels are usually the best choice.

## Choosing a Well Format and Gel Thickness

- i** We offer polyacrylamide gels in a choice of nine well formats and two thicknesses. When loading large samples (>30 µL), a thicker gel with fewer wells is more appropriate; Bolt™ Bis-Tris Plus gels are the best choice when loading large samples. When blotting, however, proteins will transfer more easily from a thinner gel.

## Choosing a Protein Standard for your Application

Choose a Life Technologies™ standard based on your experiment:

**Pre-Stained:** HiMark™ Pre-Stained Protein Standard

**Unstained:** HiMark™ Unstained Protein Standard

**Western:** MagicMark™ XP Western Protein Standard

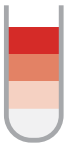

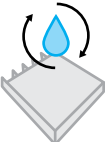
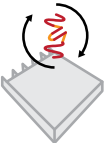
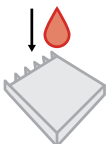

**Non-denaturing/Native:** NativeMark™ Unstained Protein Standard

For all other specialty standards, please view further information [here](#).

## **i** Limited Product Warranty and Disclaimer Details

## NuPAGE® Tris-Acetate Mini Gel Electrophoresis Protocol

Follow the procedure below to prepare for and perform SDS polyacrylamide gel electrophoresis using NuPAGE® Tris-Acetate Mini Gels.

Timeline	Steps	Procedure Details																		
1 	Prepare samples	<table border="1"> <thead> <tr> <th>Components</th><th>Denaturing Sample*</th><th>Native Sample</th></tr> </thead> <tbody> <tr> <td>Sample</td><td>x µL</td><td>x µL</td></tr> <tr> <td>NuPAGE® LDS Sample Buffer (4X)</td><td>2.5 µL</td><td>--</td></tr> <tr> <td>Tris-Glycine Native Sample Buffer (2X)</td><td>--</td><td>5 µL</td></tr> <tr> <td>Deionized Water</td><td>to 7.5 µL</td><td>to 5 µL</td></tr> <tr> <td>Total Volume</td><td>10 µL</td><td>10 µL</td></tr> </tbody> </table> <p>* For reduced samples, add NuPAGE® Reducing Agent (10X) to 1X.</p> <p><b>Denaturing Samples:</b> Heat at 70°C for 10 minutes.  <b>Native Samples:</b> Do not heat.</p> <p>Prepare 1X Sample Buffer for dilutions of samples, if needed.</p>	Components	Denaturing Sample*	Native Sample	Sample	x µL	x µL	NuPAGE® LDS Sample Buffer (4X)	2.5 µL	--	Tris-Glycine Native Sample Buffer (2X)	--	5 µL	Deionized Water	to 7.5 µL	to 5 µL	Total Volume	10 µL	10 µL
Components	Denaturing Sample*	Native Sample																		
Sample	x µL	x µL																		
NuPAGE® LDS Sample Buffer (4X)	2.5 µL	--																		
Tris-Glycine Native Sample Buffer (2X)	--	5 µL																		
Deionized Water	to 7.5 µL	to 5 µL																		
Total Volume	10 µL	10 µL																		
2 	Prepare buffers	<p><b>Denaturing Buffer:</b> Add 50 mL of 20X NuPAGE® Tris-Acetate SDS Running Buffer to 950 mL of deionized water to prepare 1X SDS Running Buffer.</p> <p><b>Native Buffer:</b> Add 100 mL of 10X Tris-Glycine Native Running Buffer to 900 mL of deionized water to prepare 1X Native Running Buffer.</p>																		
3 	Prepare gels	<ol style="list-style-type: none"> <li>Remove the comb, and rinse the gel wells three times using 1X Running Buffer.</li> <li>Remove the white tape near the bottom of the gel cassettes.</li> <li>Place the gels in the XCell SureLock® Mini-Cell gel running tank.</li> <li>Fill the gel wells with 1X Running Buffer.</li> </ol>																		
4 	Load samples and standards	<p>Load the appropriate volume and protein mass of your sample on the gel. Then, load your standards.</p>																		
5 	Load buffers	<p>Fill the Upper (200 mL) and Lower (600 mL) Buffer Chambers with the appropriate 1X Running Buffer.</p> <p>For reduced samples, use 200 mL 1X Running Buffer with 500 µL NuPAGE® Antioxidant in the Upper Buffer Chamber.</p>																		
6 	Run	<p><b>Note:</b> If you are not using a Life Technologies™ power supply, install the Novex® Power Supply Adapters (Catalog number ZA10001).</p> <p><b>Denaturing Electrophoresis:</b> Run for 1 hour at 150 V constant.</p> <p><b>Native Electrophoresis:</b> Run for 2–3 hours at 150 V constant.</p>																		